

## **What does it mean for a school to choose knowledge?**

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### **Introduction**

I was a very pleased to find that the theme chosen by the East London Science School for their 2017 Conference was 'Choosing Knowledge'. Not only does it represent the aims of the school, but it endorses the argument that David Lambert and I made in our book **Knowledge and the Future School** (Young and Lambert 2014) but relates closely to work that I and my colleague Johan Muller have been involved with others working in the sociology of education( ). However 'choosing knowledge or as it is more commonly expressed, 'choosing a knowledge-led curriculum based on academic subjects for all pupils from 11-16, is one thing as a principle derived from sociological analysis; it is quite another thing for it to be embodied in the curriculum of a non-selective secondary school It represents an , in many ways, radical vision both of what schools are for and in broad terms what they should do. However it does not tell us very much about what is involved for teachers.

In a school the question 'what is knowledge/' is not a general or only a philosophical question, which is not to say questions of epistemology are not important. It is an educational question about how knowledge is **transmitted** to as high a proportion of pupils as possible. Furthermore, unlike transmitting a an electric current or even an email message transmitting knowledge is a complex issue. Pupils do not just receive knowledge like we receive a message; the transmission of knowledge requires the active involvement of the learner(the pupils). Likewise the knowledge that it is a

school's knowledge to transmit is not like the knowledge in a dictionary, a textbook, or on the internet; as 'knowledge to be transmitted, it is both concepts, rules and activities **and** it is all of these organised into and shared by 'communities of specialists- in the case of schools, teachers as members of specialist subject associations with their conferences and journals. It is partly for this reason that, as the Principal says in one of his blogs, 'teaching knowledge is difficult and requires hard work. In this paper I want to begin to explore what this 'hard work' might involve. I start with some preliminary questions, some of which I will explore in more detail. .

1. There are schools that never question that 'choosing knowledge' is what schools they should be doing. In England, these are fee-paying Public Schools and the highly selective grammar schools. This does not mean that their curricula are beyond criticism or debate; far from it. We need to hold on to a historical perspective about how knowledge changes and remember that it was these same schools, hardly more than a century ago, that chose a very different knowledge, dominated by the language and texts of Ancient Rome and Greece. We also need to remember that in being selected for a curriculum, as the rate in which new knowledge grows, expands, , values are always involved. To put it another way, is there any reason why non-selective schools like ELSS should not see the curriculum of elite schools as a model to follow? My answer is 'No' with two provisos.
  - 1.1 The success of these schools is determined not only by their curriculum but by their access to resources, especially the resources of highly qualified specialist subject teachers, and by their exclusion of pupils they think are unlikely to succeed.
  - 1.2 A non-selective school needs to be aware that in not selecting their pupils and with their inferior

resources (both internal and external in the community), they are setting themselves challenges that the elite schools do not face. Acquiring knowledge, is difficult, and although there is a principled case for choosing a knowledge-based curriculum for all as a model, it would not be rational to treat highly selective schools with per pupil funds between two and three times (and far more for those boarding) higher as a standard. On the other hand, unlike wealth and power, the fact that some pupils acquire knowledge does not preclude it being acquired by others.

## **2. Why is choosing knowledge so rarely adopted as a curriculum goal by non-selective schools ?**

The reasons for this have changed historically. When schooling became compulsory for the whole population, it was assumed that the ability to acquire knowledge was innate, unevenly distributed across the population and closely linked to social class. Over time, the proportion of pupils who do acquire knowledge has expanded and explanations of why some still fail changed from lack of *innate ability* and social class background, to lack of motivation and aspirations or *family circumstances* and more recently, to poor teaching. Choosing **knowledge for all pupils** is even seen by some as a form of cultural imposition. It is a combination of these beliefs, still widely held, even among teachers, that has led to the weakening of knowledge boundaries for low achieving pupils from the age of 14, that the goal of 'choosing knowledge for all' challenges.

### **3. Why does a policy of choosing knowledge for all turn out to be so difficult for non-selective schools?**

There are two responses to the explanations in the previous section. One is that in the immediate context, they relate to real social forces and there are limits on the extent to which they can be overcome by an individual school. Secondly, **choosing knowledge** as a school goal requires a high level of honesty on the part of school leaders, teachers, governors, parents, and pupils about the reality of the difficulties that a knowledge-led curriculum presents to teachers.

Furthermore, it is important to recognise that like any social change pupils developing a different relationship to knowledge will not be instant but incremental over time. Recruiting well qualified teachers in the range of subjects offered is crucial; however, once you have well qualified teachers and a knowledge based curriculum, problems will remain. We do not have the reliable subject specific *pedagogic* knowledge that is the necessary complement of a knowledge-led curriculum. Singapore, like other high achieving countries thought they had solved the problem but were left with students with high test scores but lacking the subject expertise. They are compounding the problem by assuming that a new curriculum based on generic thinking skills but not located in specific subject domains could be devised.

I list here an agenda for research that *choosing knowledge* points to.

- Conceptualising subject knowledge for *an educational context* ?
- Similarities and differences between subject-specific pedagogic strategies and how they are involved in the transmission of knowledge
- Strategies for combining the hierarchical and learner engaging aims of 'transmitting knowledge'

- Encouraging pupils to interpret assessment like half term tests under control of the school and external exams which are not as tools to promote the questioning by pupils of what they know as well as necessary forms of accountability

Tackling these issues will involve school based and university –based research re-thinking the use of teacher time, and new modes of leadership.

My hope is that by specifying the issues implied by the recognition that ‘choosing knowledge’ is ‘hard work’, it will be possible to make the school’s goal of enriching subject expertise of pupils more achievable and achievable for a larger proportion of pupils. This points to a knowledge-choosing school becoming not only a knowledge –led school, but a research-led school with an impact well beyond the school itself.

The rest of what I want to say has two parts. The first part addresses the question of the differentiation of school and non-school knowledge. The sociologist Basil Bernstein referred to this as *the outside* (the knowledge created by previous generations) becoming part of *the inside* (the consciousness of pupils). I am therefore not interested in knowledge itself- that is the role of researchers in the different disciplines- but in how knowledge is differentiated for an institution like a school with the primary purpose of transmission.

The second part will touch briefly on how understanding the role of the school in the transmission of knowledge involves grasping understanding how the transmission of knowledge is related to how it is produced and evaluated.

#### **4. The differentiation of knowledge**

When thinking about knowledge in education, it is important to begin with the reality that it is differentiated

from both the knowledge we acquire through experience and knowledge that is the product of the search for truth about the world; it is knowledge organised so that it can be transmitted to learners through a curriculum. The world is not organised into a curriculum that is represented by academic subjects (or even topics or themes), so it is not surprising that many pupils who have only their experience find a curriculum based on subjects like chemistry and geography alien to them- and sometimes difficult and even boring. This differentiation is part of the reason why until recently, most state primary schools have avoided subjects altogether. One consequence of this is that pupils from what are usually fee paying primary schools( often known as preparatory schools) are much better prepared for the subject-based curriculum of a typical secondary school. It is also why sometimes secondary schools weaken the boundaries between subjects and between subjects and pupil experience, in order to make learning easier. The problem with such curricula is that all they do is to postpone the age when pupils find learning difficult and so may , albeit unintentionally hold back their progress.

The difference between school and non-school knowledge is the starting point for a school that 'chooses knowledge'. The question for teachers , if we assume they are confident about their subject knowledge, is whether can convince pupils that the difficult transformation of their non-school, experience-based knowledge into the subject knowledge of the school curriculum is worth the hard work and questioning of what they thought they knew. This is a subject specific process for both teacher and her students and will vary across different subjects; the extent to which knowledge school knowledge is codified in a subject will vary between subjects, as will the experience of pupils.

Schools are very different places from homes or communities and subject knowledge is very different, in

structure and purpose, from the knowledge pupils bring to school. Furthermore, the two kinds of knowledge are acquired in very different ways; learning in the community is not the same as learning at school. Whereas the former is *acquired spontaneously* and picked up in the course of growing up, the latter is *acquired consciously* and actively involves the learner. These differences point to the responsibilities of teachers and the importance of their professional knowledge. They not only need to know about the differences between the two types of knowledge and between the two types of learning in the case of their subjects, but they have to use their knowledge to involve their pupils as active learners themselves.

This does not mean that pupils have to be visibly 'active' ; conscious learning can and often does involve listening or being silent. If the voluntary element of learning at school is denied, the consequence is at best ***instruction*** not education, and pupils are only able to repeat what they have been told.. If the voluntary element is not linked to the purpose of the teacher and her subject knowledge, it can lead to the absurd idea of a ***learner-led*** curriculum and learning in school becomes indistinguishable from non school learning.

A curriculum cannot avoid being in some sense alien to pupils because its purpose is to take pupils beyond their experience; it therefore not surprising that teachers face difficulties which they may interpret as inappropriate behaviour.. That is why it is important to distinguish between two aspects of inappropriate behaviour. One is behaviour that disrupts the class and may need to be controlled by sanctions. The other is when a pupil behaves in a way that will not take her/his understanding further. As acquiring new knowledge must be voluntary, it cannot be controlled by sanctions; However that it still depends on the initiatives of the teacher. Teachers have two resources

in overcoming lack of pupil motivation and encouraging learning behaviour. They are their own store of subject-based knowledge, the the questions it raises and the experience they have acquired of how to use it, and the curiosity that pupils. Like all of us all children are born with curiosity but it may have been lost or not been encouraged , This means that in principle, although not always in practice pupils can always, potentially, be motivated. The basic assumption of a school that 'chooses knowledge' is that the subject knowledge of the teachers is always their primary resource for motivating pupils.

So where should teachers begin in in engaging pupils in what for many of them may be the alien culture of the curriculum? I think we have to start by giving them concrete examples of how the ways they are going to learn by acquiring subject knowledge will be different from how they think they have learned before. This will vary between subjects and to some extent between teachers and it will be something that pupils will not understand in a one-off way but incrementally over time. Clearly it is something that those teaching Year 1 will need to give considerable shared attention to in their professional development meetings.

## **5. Knowledge and learning at school and home**

In their family and community, children treat the world as *an object of experience* (Charlot 20 ) and growing up is the gradual extension of that experience. However there comes a point when experience is not enough. For many reasons a child wants to know more and a modern society wants its citizens to know more. Those were among the less formal pressures that led to the beginning of mass schooling. But what kind of place is a school and in what ways is it different from a home or a playground that make it a potential source of knowledge for children that they could not acquire at home? The key difference, I think, is that instead of treating the world as an *object of experience* and therefore taking it



for granted, the school treats the world as an ***object of enquiry***; in other words, learning at school is not just another experience but an opportunity to question and to know more about the world. It is this difference of purpose that led schools to structure knowledge differently and why we have subjects and curricula. For the pupil, subjects are a source of concepts that are not, like experience, tied to particular examples but are related to each other and shared and tested within communities of, in this case, subject specialists.<sup>1</sup>

## **6. The different types of knowledge**

In the world outside of school, knowledge ( of a city like London for example) is about familiar things– houses, , roads and shops, taxes, buses that make up. Learning about such things is part of growing up for children; it is spontaneous, informal and tied to particular examples; it is not a separate activity.

In school both knowledge and learning are very different and are organised into domains or subjects which are sets of concepts oriented to enquiry into different aspects of the world- physical, material, social, historical etc<sup>2</sup> Take the city as an example- pupils coming to school know quite a lot about the part of the city they live in. During their first year, at some point they will meet a geography teacher. Contrast

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<sup>1</sup> Bernstein develops this idea with his distinction between vertical and horizontal discourses(Bernstein 1999)

<sup>2</sup> Bernstein takes further the idea of school knowledge as a form of vertical discourse(VD) by distinguishing types of vertical discourse in terms of their objects of enquiry and hence their concepts and methods. He refers to these types of discourse as knowledge structures which as in the case of the sciences are codified hierarchically whereas in the humanities and arts they are codified horizontally(in other words their concepts and texts do not build on each other as in physics but are added to each other (as in 'schools' of art, music or literature ). This is not to say they are not sequenced, but that they are sequenced historically rather than hierarchically as in for instance electromagnetic theory and quantum theory in physics). See Carlos Ravelli's SevenBrief Lessons in physics(Ravelli 2016) for an illuminating account.

what any pupil knows with what a geography teacher who has studied urban geography knows about cities. The latter knows about a range of concepts, how they are related to each other in theories and hypotheses, and a range of methods for testing those hypotheses in different cases; she knows much about cities in general and hence can generalise about how they differ and change; that this part of the subject geography. On the other hand, she may know very little about the specifics that the pupils know about Bow as a part of London.

These two kinds of knowledge are located in two very different kinds of communities- the pupil's everyday knowledge of the city is located in their experience of the community that their family is part of and who share and taken for granted their knowledge of it. This knowledge is essential for everyday living but tells them little that is reliable about cities in general or even about other parts of their city. Although pupils will share some knowledge with others in their family and community, much of what they know is particular to their individual biography. The geography teacher has to take this knowledge seriously as a learning resource but there is no way that it could or should be part of the curriculum- the knowledge that the school has 'chosen'.

The geography teacher or any teacher is part of the particular community of specialists (in this case geography) that she is a member of. Most of what those who have studied urban geography share much of their knowledge in common, regardless of where they have studied. It is this knowledge that the subject teacher draws from and gives her or him their authority over their pupils. It is sometimes useful to distinguish between two bases for the authority of teachers- the authority that derives from her subject expertise and that which derives from her position in the school as a formal organisation (and bureaucracy). The less

knowledgeable about her subject a teacher is the more he or she has to rely on her 'position' in the school in asserting control over a class and vice versa. For much of the time, the two bases of a teachers authority come together. Confidence in the teacher's subject knowledge also guarantees for parents that what the specialist subject teacher says is not just her own opinion.

In a school that 'chooses knowledge', the task of specialist subject teachers is to draw on the curriculum for their subject content in how they respond to pupils and devise activities for them; at the same time they have to elicit what the pupils already know about cities from their experience so the they can consciously extend their knowledge. Their aim should not be to replace the pupils' knowledge but to enable the pupils to locate what they know in the broader context of what subject specialists such as geographers know about cities. Syllabuses are a key curriculum resource for the teacher but not the only one. As I mentioned earlier, a bigger resource is the curiosity of the pupil in wanting to learn more and it is a key role of teachers to elicit this curiosity in how they respond to pupils and in the activities they require their pupils to undertake . In the case of geography this resource is about cities as alive and ever changing places and what is different about the city where their pupils live.

## **7. The curriculum and its context**

I want to turn next, albeit briefly, to the importance of seeing the curriculum in its context. When a school states that it is 'choosing knowledge', it invariably means that it has a subject-based curriculum.

However neither schools nor school subjects like geography or chemistry are isolated entities. Subject knowledge;

- draws on knowledge constantly developing and produced in universities and research institutes

- It is interpreted and used by teachers in engaging with pupils
- The subject knowledge that pupils acquire is partly shaped by what they have picked up from teachers and textbooks and partly in the process of reproducing knowledge for school-based tests and external examinations

To put my point more in another way- In any education system “discipline-specific knowledge”. It is produced and updated by research and scholarship. It is also transformed- Bernstein refers to the process as ‘re-contextualisation’- into “school knowledge’- the subjects of the curriculum. This process is shaped both by governments and employers and by the professional education community. Knowledge builds on knowledge, not experience, but in very different ways depending on the discipline. If this were not true, we would always be beginning again. Even novelists, poets and artists build on past knowledge, albeit sometimes by rejecting it. We need to be aware of how this happens. Sociologist Basil Bernstein suggested a three-part framework, but the empirical research largely remains to be done.

Firstly, we need to be aware of how society *regulates* and *distributes* existing and new knowledge through research, and journals. This is always a process of specialisation. However, although specialisation is a strong concept in identifying the conditions for the growth of knowledge **in the context of production**, and in a slightly different way, in structuring the progress of student learning in the **context of reproduction**- namely through the school curriculum. However specialisation is a weak concept in pointing to the sources of integration of specialisms that it gives rise to. The current ‘solutions’ to the problems that specialisation generates- both integration and equality – create more problems than they solve. One solution,

popular in international organisations such as the OECD is **21<sup>st</sup> century skills**; however this relies on a genericism which abstracts what is common to specialist domains but without a theory that relates the generic to the domain specific. The second popular idea is the Capabilities approach derived from the welfare economics of Nobel Prize Winner, Amartya Sen. It broadens the concept of purpose, initially for economic growth but also for schooling. However, in my view, it slips into becoming a sophisticated version of an outcomes-based curriculum. Outcomes *arise from* knowledge and access to a curriculum; they can never be the basis for a curriculum as the successive failures of competence-based models have demonstrated.

Secondly we need to be aware of how knowledge is selected, delocated from disciplines and relocated as school subjects, and expressed in curricula and textbooks. Bernstein referred to this process as the *recontextualisation* of the disciplines into school subjects. This is a suggestive idea but it lacks empirical exploration. It takes us back to the basis of the authority of the teacher and the relationship between the concepts that follow from 'choosing knowledge'; Its argument is that the concepts acquired by students progressing in their first five years of schooling must be consistent with those being used and extended by researchers and scholars.

The third aspect of the context that a policy of choosing knowledge' needs to consider is the **process of reproduction** through teaching and the assessment of what pupils know. This is important but beyond the scope of this paper.

I mention this rather abstract formulation of the context in which a school will 'choose knowledge' because it reminds us of the complex set of processes outside the school, that shape the everyday work of teachers in planning lessons,

responding to pupil queries, and devising activities, including tests.

## **8. Two concluding points**

I have focused on the question of knowledge and why it must be the starting point for any consideration of the purposes of schools, especially those that 'choose knowledge'. I have discussed two priorities for a school 'choosing knowledge. One is to reflect on schools as based a relationship of authority between teachers and pupils that this *pedagogic (often referred to as didactic)* authority has to generate and allow for the voluntary element in how learners acquire new knowledge. If this is voluntary element is avoided, pupils may achieve high test scores but it will be as a result of memorization not comprehension. Memorisation can only be one element in acquiring new knowledge. Holding this tension between authority and voluntarism together goes to the heart of a teacher's professional knowledge. It will never be a given and will always involve risks because like any knowledge it will always combine the codified and explicit and the tacit and implicit. Human minds have their material base in neurons that are made up of atoms with properties that can be predicted with extraordinary reliability. However, human minds are not atoms, any more than they are brains alone; they are the product of our lifelong interaction with other human beings; it is this that gives us our capacity for judgment and in children their curiosity.

My second final point is about the relationship between 'choosing knowledge' and equality. I began by stating that I support the idea of schools 'choosing knowledge' for all pupils. I also agree that this common curriculum for all pupils should be based on academic subjects, at least up to the age of 16, and that it is the best way we have of ensuring

that it is the search for the truth that governs the aims of a school and the opportunities they make available to pupils.

However, a common curriculum for *all* students is a dramatically different approach to promoting equality from those that have dominated English educational history. Even the most successful non-selective comprehensive schools have curricula that are differentiated in terms of giving priority to knowledge and the search for truth to only some pupils at least after the age of 14. This differentiation might be better described as the de-differentiation of school from non-school knowledge- from knowledge tied to concepts and their implications and not to contexts and examples from experience. Such de-differentiation usually involves the weakening of the boundaries between school and non school knowledge for a proportion of pupils in the hope that in providing them with more connections to their everyday experience, they will be more motivated to engage with knowledge that is not tied to their experience. The most well known contemporary example is found in those schools adopting the Royal Society of Arts Opening Minds Project. My final question is whether it is conceivable that the experience of individual schools like the East London Science School in 'choosing knowledge'- might be 'scaled up' to be a model for a new common school for all?

## Note

I would much welcome comments, suggestions criticism of the arguments in this paper. **Choosing Knowledge** cannot be a one school project. It will only succeed in the ambitious goal of ensuring that all pupils leave school with the knowledge they need to understand our increasingly complex world if it is the basis of the curriculum for all schools. We have only just started.

Please contact me at [michael.young@ucl.ac.uk](mailto:michael.young@ucl.ac.uk). Thank you.